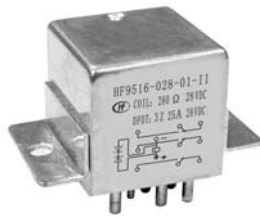


# HF9516

## 1 CUBIC INCH 3 FORM C HERMETICALLY SEALED RELAY WITH COIL TRANSIENT SUPPRESSION



### Features

- Force balanced type
- With coil transient suppression
- 25A contacts switching capability
- Failure rate can be level L
- High ambient applicability
- All metal welded construction
- Hermetically welded and marked by laser

### AMBIENT ADAPTABILITY

| Ambient grade             |              | I                    | II                                      | III                                     |
|---------------------------|--------------|----------------------|-----------------------------------------|-----------------------------------------|
| Ambient temperature       |              | -55 °C to 85 °C      | -55 °C to 85 °C                         | -65 °C to 125 °C                        |
| Humidity                  |              | 98%, 40 °C           |                                         |                                         |
| Low air pressure          |              | 58.53 kPa            | 4.39 kPa                                | 4.39 kPa                                |
| Sine vibration            | Frequency    | 10 Hz to 1000 Hz     | 10 Hz to 2000 Hz                        | 10 Hz to 3000 Hz                        |
|                           | Acceleration | 147 m/s <sup>2</sup> | 196 m/s <sup>2</sup>                    | 294 m/s <sup>2</sup>                    |
| Shock resistance          |              | 490 m/s <sup>2</sup> | 980 m/s <sup>2</sup>                    | 1960 m/s <sup>2</sup>                   |
| Random vibration          |              | —                    | 20 (m/s <sup>2</sup> ) <sup>2</sup> /Hz | 40 (m/s <sup>2</sup> ) <sup>2</sup> /Hz |
| Steady-state acceleration |              | 147 m/s <sup>2</sup> | 294 m/s <sup>2</sup>                    | 490 m/s <sup>2</sup>                    |

### CONTACT DATA

| Ambient grade                      |                 | I       | II | III     |
|------------------------------------|-----------------|---------|----|---------|
| Arrangement                        |                 | 3 C     |    |         |
| Contact resistance or voltage drop | Initial max.    | 0.01 Ω  |    | 0.006 Ω |
|                                    | After life max. | 0.012 Ω |    | 0.007 Ω |

### Contact and life ratings

| Type      | Contact load |                                | Electrical life min.    |
|-----------|--------------|--------------------------------|-------------------------|
|           | 28Vd.c.      | 115/200Va.c. 400Hz Three phase |                         |
| Resistive | 25A          | 25A                            | 5 x 10 <sup>4</sup> ops |
| Inductive | 12A          | —                              | 1 x 10 <sup>4</sup> ops |
| Inductive | —            | 15A                            | 2 x 10 <sup>4</sup> ops |
| Motor     | 10A          | —                              | 5 x 10 <sup>4</sup> ops |
| Lamp load | 5A           | —                              | 5 x 10 <sup>4</sup> ops |

## SPECIFICATION

|                                                       |                                                     |                            |                                            |                                            |
|-------------------------------------------------------|-----------------------------------------------------|----------------------------|--------------------------------------------|--------------------------------------------|
| Ambient grade                                         |                                                     | I                          | II                                         | III                                        |
| Insulation resistance min.                            | Initial                                             | 100 MΩ (@ 500 Vd.c.)       | 100 MΩ (@ 500 Vd.c.)                       | 100 MΩ (@ 500 Vd.c.)                       |
|                                                       | After life or after testing                         | 50 MΩ (@ 500 Vd.c.)        | 50 MΩ (@ 500 Vd.c.)                        | 50 MΩ (@ 500 Vd.c.)                        |
| Dielectric strength min. (Normal condition)           | Between coil & cover                                | 1000 Vr.m.s.               | 1000 Vr.m.s.                               | 1000 Vr.m.s.                               |
|                                                       | Between other insulation parts (initial)            | 1250 Vr.m.s.               | 1250 Vr.m.s.                               | 1250 Vr.m.s.                               |
|                                                       | Between other insulation parts (after life testing) | 1000 Vr.m.s.               | 1000 Vr.m.s.                               | 1000 Vr.m.s.                               |
| Dielectric strength min. (Low air pressure condition) |                                                     | 250 Vr.m.s.                | 250 Vr.m.s.                                | 350 Vr.m.s.                                |
| Leakage rate max.                                     |                                                     | 1 Pa•cm <sup>3</sup> /s    | 1 x 10 <sup>-1</sup> Pa•cm <sup>3</sup> /s | 1 x 10 <sup>-3</sup> Pa•cm <sup>3</sup> /s |
| Operate time max.                                     |                                                     | 15 ms                      |                                            |                                            |
| Release time max.                                     |                                                     | 15 ms                      |                                            |                                            |
| Mounting style                                        |                                                     | See the mounting dimension |                                            |                                            |
| Terminals                                             |                                                     | See the terminal styles    |                                            |                                            |
| Work position                                         |                                                     | Random                     |                                            |                                            |
| Weight max.                                           |                                                     | 85 g                       |                                            |                                            |

## COIL DATA

|                   |           |
|-------------------|-----------|
| Normal coil power | Approx.3W |
|-------------------|-----------|

### Coil Version

| Order Number | Coil voltage    |            | at 25 °C                 |                      |                   |                       | -65°C to 125°C       |                   |                       | Pick-up voltage max. |                          |
|--------------|-----------------|------------|--------------------------|----------------------|-------------------|-----------------------|----------------------|-------------------|-----------------------|----------------------|--------------------------|
|              | Nominal voltage | Value max. | Coil resistance (Ω) min. | Pick-up voltage max. | Hold voltage max. | Drop-out voltage min. | Pick-up voltage max. | Hold voltage max. | Drop-out voltage min. | High temp. test      | Continuous electric test |
| 028          | 28              | 29         | 260                      | 15.5                 | 5.5               | 2.3                   | 20.0                 | 7.0               | 1.5                   | 21.0                 | 25.0                     |

**Notes:** We can offer many kinds of of coil voltage under the requirement of users.

## ORDERING INFORMATION

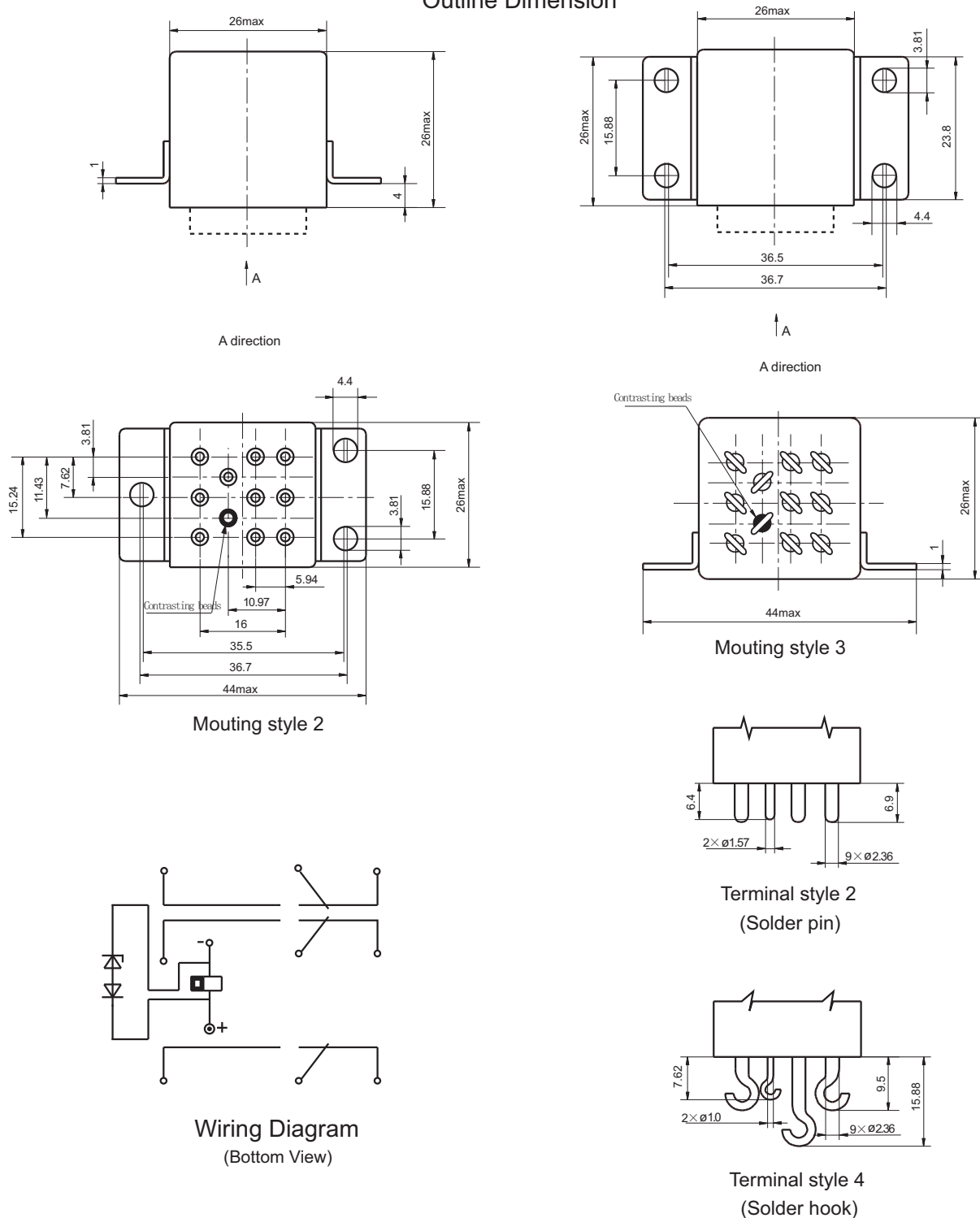
|                 |                                                                                                                                                   |      |   |    |   |      |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------|---|----|---|------|
| Type            | HF9516                                                                                                                                            | -028 | L | -2 | 2 | - II |
| Order Number    | 028                                                                                                                                               |      |   |    |   |      |
| Failure Rate    | L: Failure rate level L (level III products available) <sup>1)</sup><br>Nil: Without failure rate requirement(level I ,II ,IIIproducts available) |      |   |    |   |      |
| Mounting Style  | 2, 3 (See the mounting dimension)                                                                                                                 |      |   |    |   |      |
| Terminals Style | 2, 4 (See " Terminal styles " below)                                                                                                              |      |   |    |   |      |
| Ambient Grade   | I : level I II : level II III: level III                                                                                                          |      |   |    |   |      |

**Notes:** 1) For the failure rate of L ,the letter "III" of ambient grade level will not appear on relay cover.

# OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit:mm

## Outline Dimension



## Disclaimer

This datasheet is for the customers' reference. All the specifications are subject to change without notice.

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